

Usage of Print and Electronic Resources at the Library, University of Zagreb – Analysis and Comparison Based on the Usage Statistics

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Summary

Many pieces of research have shown that different subject disciplines make different usage of professional literature. The results usually point to differences in the usage of sources of information between physical sciences, biomedical sciences and engineering on the one side, and social sciences and humanities on the other, stressing the fact that the former make more use of electronic resources than the latter. The results of this research should show us whether this is the case at the Faculty of Humanities and Social Sciences' Library.

Key words: humanities, social sciences, literature use, print resources, electronic resources

Introduction

Significant differences in the presentation of scientific discoveries are most clearly seen in the scholarly communication. The information in physical sciences, engineering, and biomedical sciences becomes outdated much faster than the information in social sciences and humanities. That is why discoveries and achievements in physical sciences, engineering and biomedical sciences are normally published in journals, while books are still very much present in social sciences and humanities (Nederhof,¹ Hiller²). A survey of users also revealed different behaviours in the very process of searching through referential elec-

¹ Nederhof, Anton J. Bibliometric monitoring of research performance in the Social Sciences and the Humanities : a review. *Scientometrics*, 66(2006), 1; p84

² Hiller Steve. How different are they? A comparison by academic area of library use, priorities, and information needs at the University of Washington. // *Issues in Science & Technology Librarianship*, 33(Winter 2002); 13p. <http://www.isl.org/02-winter/article1.html> (5 August 2009)

tronic resources.³ Since these differences are quite prominent, it was highly probable that differences in the usage of professional literature also exist between social sciences and humanities. Research conducted in recent years indicates that there are also differences in the usage of literature (print versus electronic resources, books versus journals) between different fields of social sciences (Liu,⁴ Kriebel et Lapham⁵...). However, a piece of research conducted this year has shown that, contrary to the existing information, there is no connection whatsoever between the scientific field and the treatment of electronic resources.⁶ This discovery remains to be verified.

Several pieces of research have been conducted in order to study the differences in the usage of sources of information between social sciences and humanities (Nederhof,⁷ Dilevko et Gottlieb⁸...). The results have shown that there is a minor difference in the usage of a certain kind of source of information – humanities rely more on books, while social sciences makes more use of journals.

This research is intended to analyse, according to the statistical data gathered at the Faculty of Humanities and Social Sciences' Library, the information about the frequency of the usage of traditional (e.g. print books) and electronic resources (e.g. electronic journals) and to investigate whether there is a considerable difference in the frequency of this usage between the humanities and the social sciences. Unfortunately, due to the fact that the ILS (i.e. KOHA) was acquired only recently, it was only possible to use the statistical data gathered between March and September 2009. The databases taken into consideration were Project MUSE, JSTOR, and relevant bases from the EBSCOhost aggregator.

³ E-journals: their use, value and impact : a Research Information Network report : April 2009. 3 July 2009. http://www.rin.ac.uk/files/E-journals_use_value_impact_Report_April2009.pdf (24 August 2009)

⁴ Liu, Ziming. Print vs. electronic resources : a study of user perception, preferences, and use. // *Information processing and management*, 42(2006); 583-592

⁵ Kriebel, Leslie; Lapham, Leslie. Transition to electronic resources in undergraduate social sciences research : a study of honors theses bibliographies, 1999-2005. // *College and Research Libraries*, 69(2008), 3; 268-283

⁶ Gerke, Jennifer; Mannes, Jack M. The physical and the virtual : the relationship between library as place and electronic collections. // *College and Research Libraries*, preprint – accepted April 8, 2009; anticipated publication date November 2009. <http://www.ala.org/ala/mgrps/divs/acrl/publications/crljournal/preprints/Gerke-Maness.pdf> (20 August 2009)

⁷ Nederhof, Anton J. Bibliometric monitoring of research performance in the Social Sciences and the Humanities. 2006.

⁸ Dilevko, Juris; Gottlieb, Lisa. Print sources in an electronic age : a vital part of the research process for undergraduate students. // *The Journal of Academic Librarianship*, 28(2002), 6; 381-392

The purpose of this research is to see whether there is a considerable difference in the frequencies of usage of printed and electronic resources as seen from the perspectives of humanities and social sciences.

Print vs. Electronic

The Problem

Based on the aforementioned research, the issue of the usage of printed and electronic resources at the Faculty of Humanities and Social Sciences' Library has arisen. From the statistical information we have at our disposal, it is possible to gather the data about the number of borrowed books and about the frequency of access to the referential electronic resources (e.g. electronic journals) that the Faculty of Humanities and Social Sciences' Library has access to. Unfortunately, we do not have any information about the usage of print journals yet because no records thereof have been kept so far.

The aim of this research is to determine the relation between the number of borrowed books and the access to referential electronic databases in order too see whether there is a significant difference in the usage of print books and electronic journals with regard to scientific fields being taught and researched at the Faculty of Humanities and Social Sciences, University of Zagreb. As we have previously mentioned, we will not be able to include the information about the usage of print journals, due to the impossibility of gathering that information. This is left to be done in future research!

Scientific Disciplines and Fields and Faculty of Humanities and Social Sciences' Library Subjects

The Faculty of Humanities and Social Sciences, University of Zagreb, encompasses only some fields of humanities and social sciences. The classification of sciences in this work has been made according to the valid Pravilnik o znanstvenim i umjetničkim područjima, poljima i granama (Regulation of Scientific and Artistic Disciplines, Fields and Branches).⁹ The scientific fields from the discipline of social sciences that are taught and researched at the Faculty of Humanities and Social Sciences in Zagreb are:

- Information and communication sciences
- Sociology
- Psychology
- Pedagogy

The fields from the discipline of humanities that are taught and researched at the Faculty of Humanities and Social Sciences in Zagreb are:

- Philosophy

⁹ Pravilnik o znanstvenim i umjetničkim područjima, poljima i granama. // Narodne novine, 78(2008). <http://narodne-novine.nn.hr/clanci/sluzbeni/340161.html> (15 July 2009)

- Philology
- History
- Art history
- Archaeology
- Ethnology and anthropology

The FHSS Library subjects are formed according to fields of study and study programs, so that call numbers indicate which scientific domains a certain subject encompasses. (Table 1.)

Table 1. Faculty of Humanities and Social Sciences' Library subjects and scientific disciplines and fields

Call numbers	Subjects	Scientific disciplines and fields ¹⁰
	SOCIAL SCIENCES	SOCIAL SCIENCES
BB	Methodology	All social sciences
BC	Psychology	Psychology
BD	Sociology	Sociology
BF	Pedagogy	Pedagogy
BG	Information sciences	Information and communication sciences
	HUMANITIES	HUMANITIES
BA	Philosophy	Philosophy
CA	History	History
CB	History of art	History of art
CC	Archeology	Archeology
CD	Ethnology	Ethnology and Anthropology
BE	Anthropology	Ethnology and Anthropology
D	Slavic languages and literatures	Philology
EA	Phonetics	Philology
EB	Linguistics	Philology
EC	Comparative literature	Philology
ED	Classical philology	Philology
EE	Indology	Philology
EF	Chinese language and literature	Philology
EG	Japanese language and literature	Philology
EH	Hungarian language and literature	Philology
EI	Turkish language and literature	Philology
EJ	Scandinavic languages and literatures	Philology
FA	English language and literature	Philology
FB	German language and literature	Philology
FC	Dutch language and literature	Philology
FD	Italian language and literature	Philology
FE	French language and literature	Philology
FF	Spanish language and literature	Philology
FG	Portuguese language and literature	Philology
FH	Romanian language and literature	Philology

¹⁰ Ibid.

Statistical Data

Books

The FHSS Library was opened on March 11th 2009, and that is when the KOHA integrated library software (ILS) was implemented. Previous to this, books were being borrowed through library cards, which made it quite difficult to collect any statistical data. According to the circulation logs drawn from the call numbers, 7,141 books in social sciences and 33,334 books in humanities were borrowed until September 1st 2009.

Since subjects were formed according to the fields of study and study programs, it is possible that in every subject there are also books belonging to the other scientific discipline. Seeing as this situation exists in all subjects, we did not take it into consideration.

e-journals

The databases included in this research are the ProjectMUSE, JSTOR, and the EBSCOhost aggregator, due to their relevance for the domains of social sciences and humanities, and also because of their availability.

The classification of sciences was effected according to the aforementioned Regulation.¹¹ The problem that occurred in the process of gathering the data was that of how to classify the journals in the databases according to the scientific domain they cover (that is, how to distinguish journals for humanities from those for social sciences). We opted for manual sorting of journals into two groups as the solution. The criteria we sorted the journals by were the descriptions of each journal in the database. The journals that could not be unequivocally sorted into one of the two groups (multidisciplinary journals that cover both domains) were excluded from this research.

The data about the access to the relevant databases (ProjectMUSE, JSTOR, EBSCO aggregator) were taken from the statistical reports on the access to full-text articles, either in PDF or HTML format.

In the same period, according to the access logs, full-text articles in the referential databases were accessed 39,257 times in the discipline of humanities, while full-text articles covering the discipline of social sciences have been accessed 16,155 times.

Discussion

The results of the research have shown that the literature from both humanities and social sciences is more often accessed electronically than by borrowing print books. (Table 2.)

¹¹ Ibid.

Table 2. Percentage of full-text access and book loans

	Humanities	Social sciences
E-resources (full-text access)	54.0%	69.2%
Print resources (book loans)	46.0%	30.8%
Base	72,491	23,329

Regarding the access to full-text articles in the referential databases, we have learned that social sciences make more use of e-resources than humanities do: the ratio is 69.2% of total literature usage in social sciences to 54.0% in humanities.

As expected, e-resources were used more in social sciences than in humanities. This can be explained by the fact that the literature becomes outdated in social sciences faster than in humanities, so the social sciences scholars are traditionally more incline to journals, therefore to e-journals as well. Also, the simplicity and ease of using the e-sources can just help the social sciences scholars and students to use e-journals frequently.

The results of this research show that the usage of e-resources is surprisingly high in humanities comparing to aforementioned researches. That can be explained by several reasons:

- **Selection of the referential databases** - EBSCOhost is financed by the Ministry of Science, Education and Sport, while Faculty of Humanities and Social Sciences has financed ProjectMUSE with its own funds since 2006. Apart from those two, there is also a database Jstor which is specialized mainly in humanities. Faculty of Humanities and Social Sciences has acquired Jstor in 2009 after multiple requests from the faculty, and this acquisition has definitely increased the number of accesses to e-journals, after a long period of waiting and anticipation.
- **Higher level of computer and information literacy** – in the last few years new information and computer technologies have penetrated deeply in everyday life, and the consequence is that the users are more computer and information literate, due to frequent use of computer or information retrieval. Faculty of Humanities and Social Sciences' Library has played an important role in this process with continuous efforts and educational programs that are conducted for all faculties, including humanities scholars and teachers as well. It should be mentioned that in few last years great number of young scholars, who are more computer literate, have become faculty members so that can also be the reason of higher percentage of the usage of e-resources.
- **Accessibility** – Faculty of Humanities and Social Sciences' Library has secured 200 computers with Internet access for users in new facilities

since March 2009. Apart from the improvements in the library building, it is possible to access and search the databases from home via proxy-server that helps the faculty to work at home because the Faculty facilities cannot provide them enough space to work at the Faculty. Such results justify high investments in the acquisition of the e-resources at the Faculty of Humanities and Social Sciences for last few years, and give the further stimulation for librarians to continue the good work. Nevertheless, some questions remain to be answered. It is necessary to conduct further researches to see whether the acquisition of Jstore has significantly influenced on the data. Another research should definitely include the data about the use of print journals.

Conclusion

As previous researches dealing with the usage of print and e-resources have shown, this one also points that there is a statistically significant difference in the usage of print and electronic resources, respective of scientific domains. Related to the topic of this research, social sciences make more use of e-resources than humanities (expected hence their nature).

Overall, e-journals are used more than print books in both - social sciences and humanities. It is interesting to see that they are used more than print in the humanities as well (different from previous researches). The reason behind this could be the right selection of the specialized and high-quality e-journals Faculty of Humanities and Social Sciences has access to. The policy of investment in referential databases (ProjectMUSE, Jstor), additional to the one financed by Ministry of Science, Education and Sport (EBSCOhost) turned out to be valid, allowing the faculty and the students to consult the most relevant information. Furthermore, the library users have become more computer and information literate due to everyday use of information and computer technology, as well as the Faculty of Humanities and Social Sciences' Library efforts to inform and educate the users to use those databases. The third reason is the accessibility of referential databases from Faculty facilities as well as from home via proxy server.

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